MAINE PUBLIC HEALTH ALERT NETWORK SYSTEM

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ALERT – Important Information*

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TO: All

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SUBJECT: Mumps

DATE: October 18, 2007

TIME: 1:15 PM

PAGES: 4

PRIORITY: Review

Background:

Since September 27, Maine CDC has received reports of three people with laboratory-confirmed mumps in central and southern Maine. Three people of unknown vaccination status in their 30s-40s are infected in York and Cumberland Counties. Two were hospitalized and are now recovering at home. All are expected to fully recover. These are the first confirmed people infected with indigenous mumps in Maine in more than ten years. In addition, Maine CDC is currently investigating the possibility of two people infected in Kennebec County. We are also investigating any common exposures these individuals might have had to mumps.

Mumps is a viral systemic disease. The virus replicates in the upper respiratory tract and in the regional lymph nodes. The disease then spreads via the circulatory system to distant organs, but the most frequently involved are the salivary glands, particularly the parotid.

Clinical Presentation:

Mumps incubation period is between 16-18 days. The prodromal symptoms of mumps are non-specific and may include myalgia, anorexia, malaise, headache and low-grade fever. Parotitis usually occurs within the first two days. Parotitis is the most common manifestation of mumps and occurs in 30-40% of infected individuals. Parotitis can be unilateral or bilateral with any combination of single or multiple salivary glands being affected. Approximately one third of infected individuals do not display salivary gland swelling, and in some of those cases the disease manifests itself as respiratory tract infection. Symptoms improve after a week and tend to resolve within ten days.

Among the unimmunized, mumps is primarily a childhood disease. Mumps infection in adults is often more severe and most mumps deaths, although rare, occur among adults.

More than 50% of mumps patients have cerebrospinal fluid pleocytosis but 10-15% present with symptomatic meningitis. Encephalitis is very rare.

Orchitis is the most prevalent complication among adult males (50%). Other mumps complications are oophoritis (5% of adult women), pancreatitis, deafness and myocarditis.

Transmission:

Mumps is airborne transmitted and is also spread through contact with saliva and infected droplet nuclei.

Diagnosis:

Despite several recent outbreaks, mumps remains an uncommon infection in the United States. Suspicion of infection is usually based on clinical manifestations and parotitis in particular.

Mumps virus can be isolated from clinical specimens. The preferred sample is a swab of the parotid duct or the duct of any other affected salivary gland. Mumps virus can be detected by Polymerase Chain Reaction (PCR).

Mumps can be diagnosed also by detection of mumps-specific IgM antibody or by a significant increase in IgG antibody titer between acute and convalescent stages. Enzyme Immunoassay (EIA) for both IgM and IgG is widely available

Clinical Management:

Supportive

Prevention:

General: Patients with mumps are infectious for up to nine days after the onset of illness and should be excluded from social events, school or employment activities for that period of time. Vaccination of under-immunized and unimmunized individuals has been shown to reduce the risk of transmission of the disease. (See recommendations below)

Healthcare Setting: In addition to standard infection control precautions, droplet precautions are recommended for hospitalized mumps patients until nine days after onset of disease.

Schools: Maine law requires vaccination of all school children with two doses of MMR. In outbreak situations, unvaccinated children will be excluded.

Recommendations:

Evidence of Immunity: On May 17, 2006, the Advisory Committee for Immunization Practices (ACIP) recommended key changes to the 1998 ACIP recommendations on mumps. Maine CDC is adopting those recommendations for the control of mumps.

> **Acceptable Presumptive Evidence of Immunity**
> Documentation of adequate vaccination is now 2 doses of a live mumps virus vaccine instead of 1 dose for school-aged children (i.e., grades K-12) or adults at high risk (i.e., persons who work in health-care facilities, international travelers, and students at post-high school educational institutions).

Routine Vaccination for Health-Care Workers

Persons born during or after 1957 without other evidence of immunity: 2 doses of a live mumps virus vaccine.

Persons born before 1957 without other evidence of immunity: consider recommending 1 dose of a live mumps virus vaccine.

Laboratory Testing: Culture, PCR, and IgG testing are available through the State's Health and Environmental Testing Laboratory (HETL). Providers are encouraged to take advantage of these services. IgM serologic testing is available through commercial laboratories.

Surveillance: Early detection and control of individual mumps cases could result in preventing an outbreak. **Please report a suspect case of mumps to the 24-hour disease reporting and consultation line at Maine CDC at 1-800-821-5821.**

For information on laboratory testing for mumps visit:
http://www.cdc.gov/nip/diseases/mumps/faqs-lab-test-infect.htm .

For information on prevention and control of mumps in healthcare settings visit:
http://www.cdc.gov/vaccines/vpd-vac/mumps/outbreak/control-hcw.htm.

For information on the latest ACIP recommendations for the control of mumps visit:
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5522a4.htm?s_cid=mm5522a4_e or contact the Maine Immunization Program at 1-800-867-4775.